

Mr. Rodney W. Wolfe
Freudenberg-NOK General Partnership
487 W. Main Street
Morristown, IN 46161

Re: 145-15859
First Minor Source Modification to
Part 70 145-7643-00028

Dear Mr. Wolfe:

Freudenberg-NOK General Partnership was issued a Part 70 permit on May 26, 1999, for a stationary rubber product manufacturing source. An application to modify the source was received on April 16, 2002. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

- 1) Four (4) Grieve rubber curing ovens, oven # 1 with a maximum capacity of processing 60.0 pounds of rubber per hour, ovens # 2, 3, and 4 each with maximum capacity of 28.5 pounds of rubber per hour, using no control, and exhausting to stacks identified as Grieve 1, 2, 3, and 4, respectively.
- 2) One (1) Desma rubber molding press, with a maximum capacity of processing 11.0 pounds of rubber per hour.
- 3) Three (3) REP rubber molding presses, each with a maximum capacity of processing 9.1 pounds of rubber per hour.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.
6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall

not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The source may begin construction and operation when the minor source modification has been issued. Operating conditions shall be incorporated into the Part 70 operating permit as a minor permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12.

The source may begin construction when the source modification has been issued. The source must comply with the requirements of 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12 before operation of any of the proposed emission units can begin.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, press 0 and ask for Madhurima Moulik or extension 3-0868, or dial (317) 233-0868.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

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cc: File - Shelby County
U.S. EPA, Region V
Shelby County Health Department
Air Compliance Section Inspector - D. J. Knotts
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

MINOR SOURCE MODIFICATION OFFICE OF AIR QUALITY

**Freudenberg - NOK General Partnership
487 W. Main Street
Morristown, Indiana 46161**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

First Minor Source Modification No.: 145-15859-00028	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary rubber product manufacturing process.

Responsible Official: Dan Klaiber
Source Address: 487 West Main Street, Morristown, Indiana 46161
Mailing Address: P.O. Box 245, Morristown, IN 46161-0245
SIC Code: 3053
County Location: Shelby
County Status: Attainment for all criteria pollutants
Source Status: Part 70 Permit Program
Minor Source, under PSD Rules;
Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This source consists of the following emission units and pollution control devices:

- (1) Four (4) rotary spray coater facilities, identified as CE01, each facility having a maximum capacity of 1,000 pounds of parts per hour, using no control, and exhausting to stack S1.
- (2) Four (4) Grieve rubber curing ovens, oven # 1 with a maximum capacity of processing 60.0 pounds of rubber per hour, ovens # 2, 3, and 4 each with maximum capacity of 28.5 pounds of rubber per hour, using no control, and exhausting to stacks identified as Grieve 1, 2, 3, and 4, respectively.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following specifically regulated insignificant activities as defined in 326 IAC 2-7-1(21):

- (1) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

Other insignificant activities:

- (2) One (1) Desma rubber molding press, with a maximum capacity of processing 11.0 pounds of rubber per hour.
- (3) Three (3) REP rubber molding presses, each with a maximum capacity of processing 9.1 pounds of rubber per hour.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability)

because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

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SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (1) Four (4) rotary spray coater facilities, identified as CE01, each facility having a maximum capacity of 1,000 pounds of parts per hour, using no control, and exhausting to stack S1.
- (2) Four (4) Grieve rubber curing ovens, oven # 1 with a maximum capacity of processing 60.0 pounds of rubber per hour, ovens # 2, 3, and 4 each with maximum capacity of 28.5 pounds of rubber per hour, using no control, and exhausting to stacks identified as Grieve 1, 2, 3, and 4, respectively.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to CP 145-3306, ID 145-00028, issued on February 14, 1995, the particulate matter (PM) from the adhesive coating booth shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from each of the four (4) rubber curing ovens shall be limited to 0.55 lb/hr.

D.1.2 Volatile Organic Compounds (VOC)

Due to the date of construction, there are no 326 IAC 8 rules applicable to the spray coating application booth. 326 IAC 8-1-6 is not applicable to the four (4) Grieve ovens as the VOC emissions from each oven is less than 25 tons per year.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.3 Monitoring

The spray adhesive coating booth, CE01, has applicable compliance monitoring conditions as specified below:

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the paper filters, weekly observations shall be made of the overspray while the booth is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an overspray emission, evidence of overspray emission, or other noticeable change in overspray emissions is observed. If no overspray emission is usually observed, evidence of any overspray emission will be considered a noticeable

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change. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step.

Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Compliance Determination Requirements

D.1.4 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Minor Source Modification and Minor Permit Modification to a Part 70 Operating Permit

Source Background and Description

Source Name:	Freudenberg-NOK General Partnership
Source Location:	487 W. Main Street, Morristown, IN 46161
County:	Shelby
SIC Code:	3053
Operation Permit No.:	145-7643-00028
Operation Permit Issuance Date:	May 26, 1999
Source Modification No.:	145-15859-00028
Permit Modification No.:	145-15586-00028
Permit Reviewer:	Madhurima D. Moulik

The Office of Air Quality (OAQ) has reviewed a modification application from Freudenberg-NOK General Partnership relating to the operation of a stationary rubber product manufacturing source. The modification relates to the addition of the following emission units:

1. Four (4) Grieve rubber curing ovens, oven # 1 with a maximum capacity of processing 60.0 pounds of rubber per hour, ovens # 2, 3, and 4 each with maximum capacity of 28.5 pounds of rubber per hour, using no control, and exhausting to stacks identified as Grieve 1, 2, 3, and 4, respectively.
2. One (1) Desma rubber molding press, with a maximum capacity of processing 11.0 pounds of rubber per hour.
3. Three (3) REP rubber molding presses, each with a maximum capacity of processing 9.1 pounds of rubber per hour.

Existing Approvals

The source was issued a Part 70 Operating Permit T145-7643-00028 on May 26, 1999. The source has since received the following:

- (a) First Administrative Amendment No.: 145-12973, issued on January 12, 2001.
- (b) Second Administrative Amendment No.: 145-13948, issued on May 3, 2001.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Minor Source Modification and Minor Permit Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on April 16, 2002. Additional information was received on May 2, 2002.

Emission Calculations

See Appendix A of this document for detailed emissions calculations.

Potential To Emit of the Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

Pollutant	Potential To Emit (tons/year)
PM	0.43
PM-10	0.43
SO ₂	Negligible
VOC	16.95
CO	Negligible
NO _x	Negligible
Single HAP (worst case)	1.77
Combination HAP	7.65

Justification for the Modification

The Part 70 Operating permit is being modified through a Part 70 Minor Source Modification and Minor Permit Modification. The Minor Source modification is being performed pursuant to 326 IAC 2-7-10.5(d)(4)(B)(iii) for modifications that would have a potential to emit less than twenty-five (25) tons per year and equal to or greater than ten (10) tons per year of volatile organic compounds. The Minor Permit Modification is being performed pursuant to 326 IAC 2-7-12(b)(1)(B) since the modifications do not “involve significant changes to existing monitoring, reporting, or record keeping requirements in the Part 70 permit” and thus are not required by the Part 70 program to be processed as a significant modification.

County Attainment Status

The source is located in Shelby County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment

CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Shelby County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Shelby County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year) ¹
PM	16.5
PM-10	Negligible
SO ₂	Negligible
VOC	88.9
CO	Negligible
NO _x	Negligible
Single HAP (worst case)	53.1
Combination HAPs	170.6

¹ Based on Technical Support Document for Part 70 Permit No.145-7643-00028, AA No. 145-12973, AA No. 145-13948

- (c) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)
Process/facility	VOC
4 Molding presses + 4 Cure ovens	16.95
PSD Significant Threshold	25

This modification to an existing minor source (under PSD rules) is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to the four (4) new molding presses or four (4) rubber curing ovens.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to the four (4) molding presses or four (4) rubber cure ovens.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of VOC. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

The four (4) new molding presses, and four (4) new rubber curing ovens, are not subject to the requirements of 326 IAC 8-1-6, (New Facilities; General Reduction Requirements), because the potential emissions of VOC from each press and each curing oven is less than 25 tons per year.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of each of the four (4) new molding presses and four (4) new rubber curing ovens will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the four (4) rubber curing ovens shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

For a maximum process weight rate of less than 100 lb/hr, the PM emissions from each of the ovens shall be limited to 0.55 lb/hr. The potential to emit of PM of each of the four (4) rubber curing ovens is about 0.1 tons/year or 0.023 lb/hr. Therefore, the four (4) rubber cure ovens are in compliance with this rule.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

There are no specific compliance monitoring requirements applicable to the new emission units.

Conclusion

This source and permit modifications shall be subject to the conditions of the attached Part 70 Minor Source Modification No. 145-15859-00028 and Minor Permit Modification No. 145-15586-00028.

Changes to the Part 70 Permit

The following are the changes to the Part 70 Permit 145-7643-00028 (~~strike out~~ to show deletions and **bold** to show additions):

1. The facility description in Section A.2 is modified as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]
[326 IAC 2-7-5(15)]

This source consists of the following emission units and pollution control devices:

- (1) Four (4) rotary spray coater facilities, identified as CE01, each facility having a maximum capacity of 1,000 pounds of parts per hour, using no control, and exhausting to stack S1.

- (2) **Four (4) Grieve rubber curing ovens, oven # 1 with a maximum capacity of processing 60.0 pounds of rubber per hour, ovens # 2, 3, and 4 each with maximum capacity of 28.5 pounds of rubber per hour, using no control, and exhausting to stacks identified as Grieve 1, 2, 3, and 4, respectively.**

2. The facility description in Section A.3 is modified as follows:

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (1) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

Other insignificant activities:

- (2) **One (1) Desma rubber molding press, with a maximum capacity of processing 11.0 pounds of rubber per hour.**
- (3) **Three (3) REP rubber molding presses, each with a maximum capacity of processing 9.1 pounds of rubber per hour.**

3. The facility description in D.1. is modified as follows:

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (1) Four (4) rotary spray coater facilities, identified as CE01, each facility having a maximum capacity of 1,000 pounds of parts per hour, using no control, and exhausting to stack S1.
- (2) **Four (4) Grieve rubber curing ovens, oven # 1 with a maximum capacity of processing 60.0 pounds of rubber per hour, ovens # 2, 3, and 4 each with maximum capacity of 28.5 pounds of rubber per hour, using no control, and exhausting to stacks identified as Grieve 1, 2, 3, and 4, respectively.**

4. Condition D.1.1 is modified as follows:

D.1.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to CP 145-3306, ID 145-00028, issued on February 14, 1995, the particulate matter (PM) from the adhesive coating booth shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from each of the four (4) rubber curing ovens shall be limited to 0.55 lb/hr.

5. Condition D.1.2 is modified as follows:

D.1.2 Volatile Organic Compounds (VOC)

Due to the date of construction, there are no 326 IAC 8 rules applicable to the spray coating application booth. **326 IAC 8-1-6 is not applicable to the four (4) Grieve ovens as the VOC emissions from each oven is less than 25 tons per year.**

6. References to the Office of Air Management (OAM) have been changed to Office of Air Quality (OAQ).

Appendix A: Emissions Calculations

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**Emissions Calculations
Molding Press (38.3 lb/hr total capacity)**

Company Name: Freudenberg - NOK General Partnership
Address City IN Zip: 487 W. Main Street, Morristown, IN 46161
CP: 145-15859
Plt ID: 145-00028
Reviewer: Madhurima D. Moulik
Date: May 2, 2002

Compound	lb/lb rubber	Emissions
		tons/yr
Cobination HAPS	1.06E-03	0.178
Total VOCs	6.23E-03	1.045

Appendix A: Emission Calculations

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VOC and HAP Emissions

Rubber Curing Ovens: 1,2,3,4 (Cpmd 17)

Total max rate = 145.5 lb/hr

Company Name: Freudenberg - NOK General Partnership

Address City IN Zip: 487 W. Main Street, Morristown, IN 46161

MSM: 145-15859

Plant ID: 145-00028

Reviewer: Madhurima D. Moulik

Date: 02-May-2002

Pollutant	Max. Rate (lb/yr)	E.F. (lb/lb)	Emission Rate (lb/yr)	Total emissions (ton/yr)
VOC	1,274,580	2.49E-02	3.174E+04	1.587E+01
PM	1,274,580	6.75E-04	8.603E+02	4.302E-01
1,1,1-Trichloroethane	1,274,580	1.80E-05	2.294E+01	1.15E-02
1,1 Dichloroethene	1,274,580	1.35E-05	1.721E+01	8.60E-03
1,3-Butadiene	1,274,580	1.15E-05	1.466E+01	7.33E-03
2,4-Dinitrophenol	1,274,580	3.98E-07	5.073E-01	2.54E-04
2-Butanone	1,274,580	1.46E-04	1.861E+02	9.30E-02
2-Chloroacetophenone	1,274,580	1.34E-08	1.708E-02	8.54E-06
2-Methylphenol	1,274,580	2.13E-06	2.715E+00	1.36E-03
4-Methyl-2-Pentanone	1,274,580	7.54E-04	9.610E+02	4.81E-01
4-Nitrophenol	1,274,580	2.44E-07	3.110E-01	1.55E-04
Acetaldehyde	1,274,580	1.71E-05	2.180E+01	1.09E-02
Acetonitrile	1,274,580	1.14E-05	1.453E+01	7.27E-03
Acetophenone	1,274,580	2.13E-04	2.715E+02	1.36E-01
Acrolein	1,274,580	2.03E-05	2.587E+01	1.29E-02
Acrylonitrile	1,274,580	2.89E-04	3.684E+02	1.84E-01
Aniline	1,274,580	1.26E-05	1.606E+01	8.03E-03
Benzene	1,274,580	4.88E-05	6.220E+01	3.11E-02
Benzidine	1,274,580	4.44E-07	5.659E-01	2.83E-04
Biphenyl	1,274,580	3.96E-06	5.047E+00	2.52E-03
bis(2-Ethylhexyl)phthalate	1,274,580	1.82E-05	2.320E+01	1.16E-02
Bromoform	1,274,580	6.85E-06	8.731E+00	4.37E-03
Bromomethane	1,274,580	1.39E-06	1.772E+00	8.86E-04
Carbon Disulfide	1,274,580	2.52E-03	3.212E+03	1.61E+00
Carbon Tetrachloride	1,274,580	1.15E-03	1.466E+03	7.33E-01
Carbonyl Sulfide	1,274,580	2.79E-04	3.556E+02	1.78E-01
Chloroethane	1,274,580	4.19E-05	5.340E+01	2.67E-02
Chloroform	1,274,580	1.60E-05	2.039E+01	1.02E-02
Chloromethane	1,274,580	2.18E-05	2.779E+01	1.39E-02
Cumene	1,274,580	7.82E-05	9.967E+01	4.98E-02
Di-n-butylphthalate	1,274,580	8.22E-06	1.048E+01	5.24E-03
Dibenzofuran	1,274,580	3.29E-06	4.193E+00	2.10E-03
Dimethylaminoazobenzene	1,274,580	4.03E-07	5.137E-01	2.57E-04
Dimethylphthalate	1,274,580	3.87E-07	4.933E-01	2.47E-04
Ethyl Acrylate	1,274,580	1.16E-04	1.479E+02	7.39E-02
Ethylbenzene	1,274,580	1.06E-04	1.351E+02	6.76E-02
Hexachlorobenzene	1,274,580	2.29E-07	2.919E-01	1.46E-04
Hexachloroethane	1,274,580	3.03E-05	3.862E+01	1.93E-02
Hexane (c)	1,274,580	2.78E-03	3.543E+03	1.77E+00
Hydroquinone	1,274,580	1.99E-05	2.536E+01	1.27E-02
Isooctane	1,274,580	1.89E-05	2.409E+01	1.20E-02
Isophorone	1,274,580	1.63E-05	2.078E+01	1.04E-02
m-Xylene	1,274,580	1.33E-06	1.695E+00	8.48E-04
m-Xylene + p-Xylene	1,274,580	3.55E-04	4.525E+02	2.26E-01
Methylene Chloride	1,274,580	9.51E-04	1.212E+03	6.06E-01
N,N-Dimethylaniline	1,274,580	1.26E-06	1.606E+00	8.03E-04
Naphthalene	1,274,580	7.59E-06	9.674E+00	4.84E-03
Nitrobenzene	1,274,580	4.97E-07	6.335E-01	3.17E-04
o-Chloroaniline	1,274,580	5.50E-06	7.010E+00	3.51E-03
o-Xylene	1,274,580	1.9E-04	2.422E+02	1.21E-01
p-Xylene	1,274,580	2.53E-05	3.225E+01	1.61E-02
Pentachlorophenol	1,274,580	3.08E-07	3.926E-01	1.96E-04
Phenol	1,274,580	3.13E-05	3.989E+01	1.99E-02
Propanal	1,274,580	8.19E-05	1.044E+02	5.22E-02
Propylene Oxide	1,274,580	1.72E-04	2.192E+02	1.10E-01
Styrene	1,274,580	1.05E-04	1.338E+02	6.69E-02
Substituted Quinonline	1,274,580	1.23E-04	1.568E+02	7.84E-02
t-Butyl Methyl Ether	1,274,580	1.97E-04	2.511E+02	1.26E-01
Tetrachloroethene	1,274,580	1.01E-04	1.287E+02	6.44E-02
Toluene	1,274,580	5.68E-04	7.240E+02	3.62E-01
Trichloroethene	1,274,580	5.46E-06	6.959E+00	3.48E-03
Vinyl Chloride	1,274,580	3.24E-07	4.130E-01	2.06E-04
			Total HAPs	7.47E+00

Methodology

Emission factors taken from the study completed for the Rubber Manufacturers Association (RMA), 9/96; emission factors shown represent worst-case rubber on a pollutant-by-pollutant basis.

Note: The study by the RMA, 9/96, is used for AP-42, Section 4.12, Manufacture of Rubber, 6/99, draft.

Potential emissions in tons per year = maximum production rate (175,200 lbs/yr * 4 post cure ovens) * e.f. (lb/lb)/2000

Hexane is the worst case single HAP (in bold).

Appendix A: Emissions Calculations

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Emissions Calculations

Molding Press (38.3 lb/hr total capacity)

Company Name: Freudenberg - NOK General Partnership
Address City IN Zip: 487 W. Main Street, Morristown, IN 46161
CP: 145-15859
Plt ID: 145-00028
Reviewer: Madhurima D. Moulik
Date: May 2, 2002

Pollutant	Presses	Rubber Curing Ovens	Total (tons/yr)
VOC	1.045	15.9	16.95
Single HAP	0	1.77	1.77
Combination HAPs	0.178	7.47	7.65
PM	0	0.43	0.43